SANYO

GXT 100

OPERATING INSTRUCTIONS

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STEREO COMPONENT SYSTEM

INTRODUCTION

This Stereo Component System has been developed and engineered by Sanyo to give many years of enjoyment.
Before you install and start operating your Stereo Component System, please read the instructions in this booklet carefully. This helps to avoid errors in operation and to ensure faultless performance for maximum listening enjoyment.

SELECTION OF LOCATION

1. Select a well-ventilated place that is not exposed to direct sunlight.
2. Avoid humid or dusty locations.
3. The unit should not be placed near electric appliances that may cause interference, such as motors, strong magnets etc. Locations near electric heating systems should also be avoided.
4. In concrete buildings, radio reception may be improved if the unit is placed near a window.

PREPARATION

1. Unpack the unit.
2. Turn the two shipping screws which fix the player board fully clockwise. See Fig. 1.
3. Connect the speakers, the AM loop aerial supplied and an FM aerial before applying power. Refer to "CONNECTING THE COMPONENT SYSTEM" section in this booklet.
4. After completing installation and all connections, make sure that the POWER switch on the control panel is in its out (OFF) position.
   Then plug the power cord into an AC outlet.

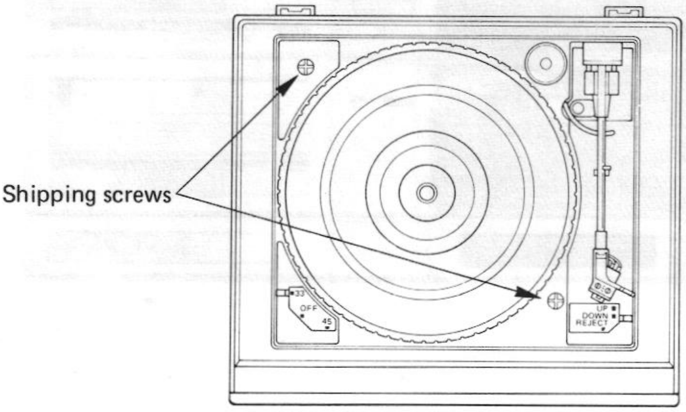

Fig. 1

MAINS LEAD WIRING INSTRUCTIONS

IMPORTANT:
The wires in the mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:—

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

CONNECTING THE COMPONENT SYSTEM

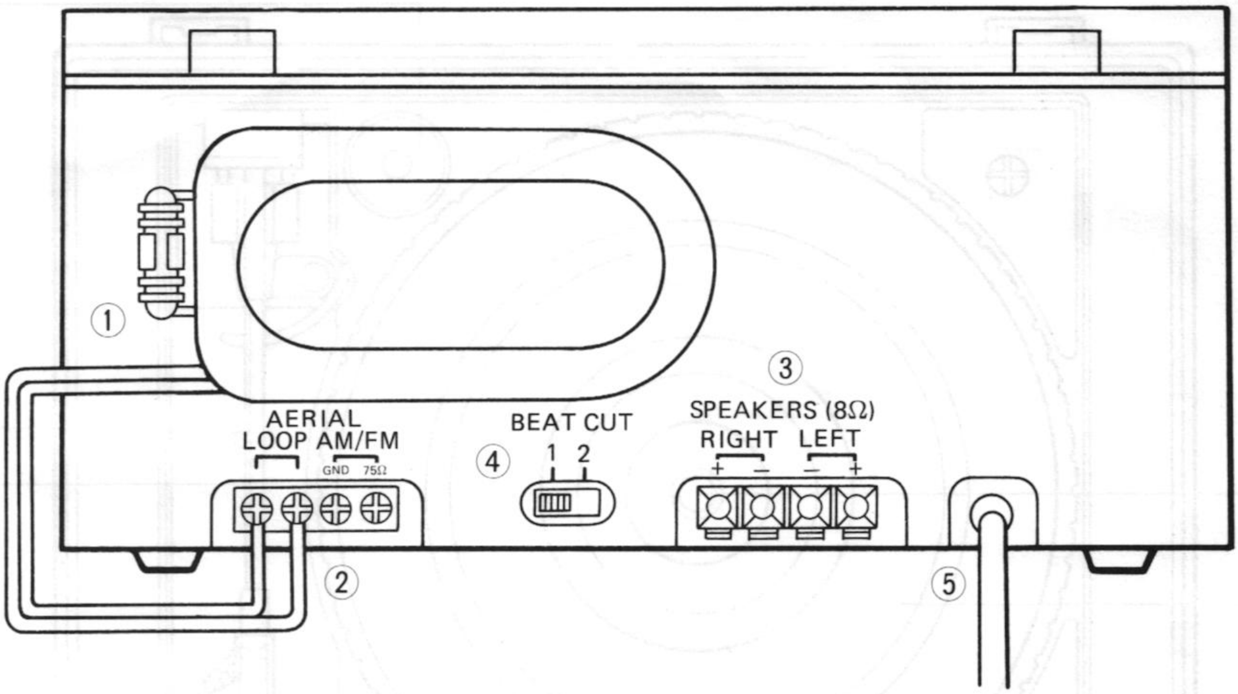

Fig. 2

① **Loop aerial & Holder**
This unit is equipped with a removable loop aerial for reception of LW and MW radio programmes. Unless radio signals are too weak, no external aerial is necessary. The wires of the loop aerial should be connected to the aerial terminals marked "LOOP".
When listening to MW or LW broadcasts, adjust the direction of the loop aerial for the best reception. If the station being tuned in is weak, remove the loop aerial from the holder and place it where the best reception is obtained.
NOTE:
Keep all speaker, audio and power cords away from this aerial and never use it as a handle.

② **AM/FM 75Ω AERIAL terminals**
The high quality loop aerial for AM (MW and LW) and a simple FM indoor aerial can be used for reception of local stations.
If you live in a steel-frame building, require better reception of local stations, or noise-free FM-stereo reception, you should have a good AM/FM outdoor aerial.
Connect aerial with 75-ohm coaxial cable to the AM/FM aerial terminals on the rear panel. The inner wire should be connected to the aerial terminal marked "75Ω" and the braided wire should be connected to the terminals marked "GND". See Fig. 3.
If you need advice for connection or which aerial system to use, contact your local dealer.
NOTE:
- *Be careful not to cause a short circuit between the aerial terminals.*
- *In that case, do not disconnect the loop aerial for the best AM (MW and LW) reception.*

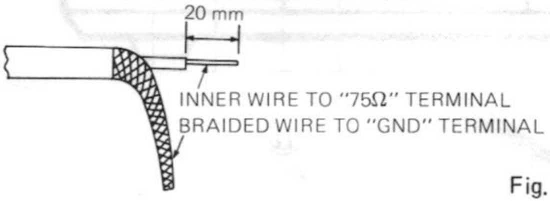

Fig. 3

③ **SPEAKER terminals**
A pair of speakers should be connected to this component system.
Connect the cables from the left-hand side speaker to the SPEAKER terminals marked "LEFT", and the cables from the right-hand side speaker to the terminals marked "RIGHT". Be careful to observe the correct polarity of the speaker connections. The plus terminal of your speaker should be connected to the "+" terminal of the component system, and minus to "–".
NOTE:
- *Be careful not to cause a short circuit between the speaker terminals.*
- *The impedance rating of each speaker to be used with this component system should be 8 ohms minimum.*

④ **BEAT CUT switch**
Change switch position to eliminate the beat sound (whistle), which may be heard when recording a MW or LW station.

⑤ **AC power cord**
After completing all connections, make sure that the POWER switch on the control panel is in its out (OFF) position. Then plug the power cord into an AC outlet.

CONTROLS & OPERATION

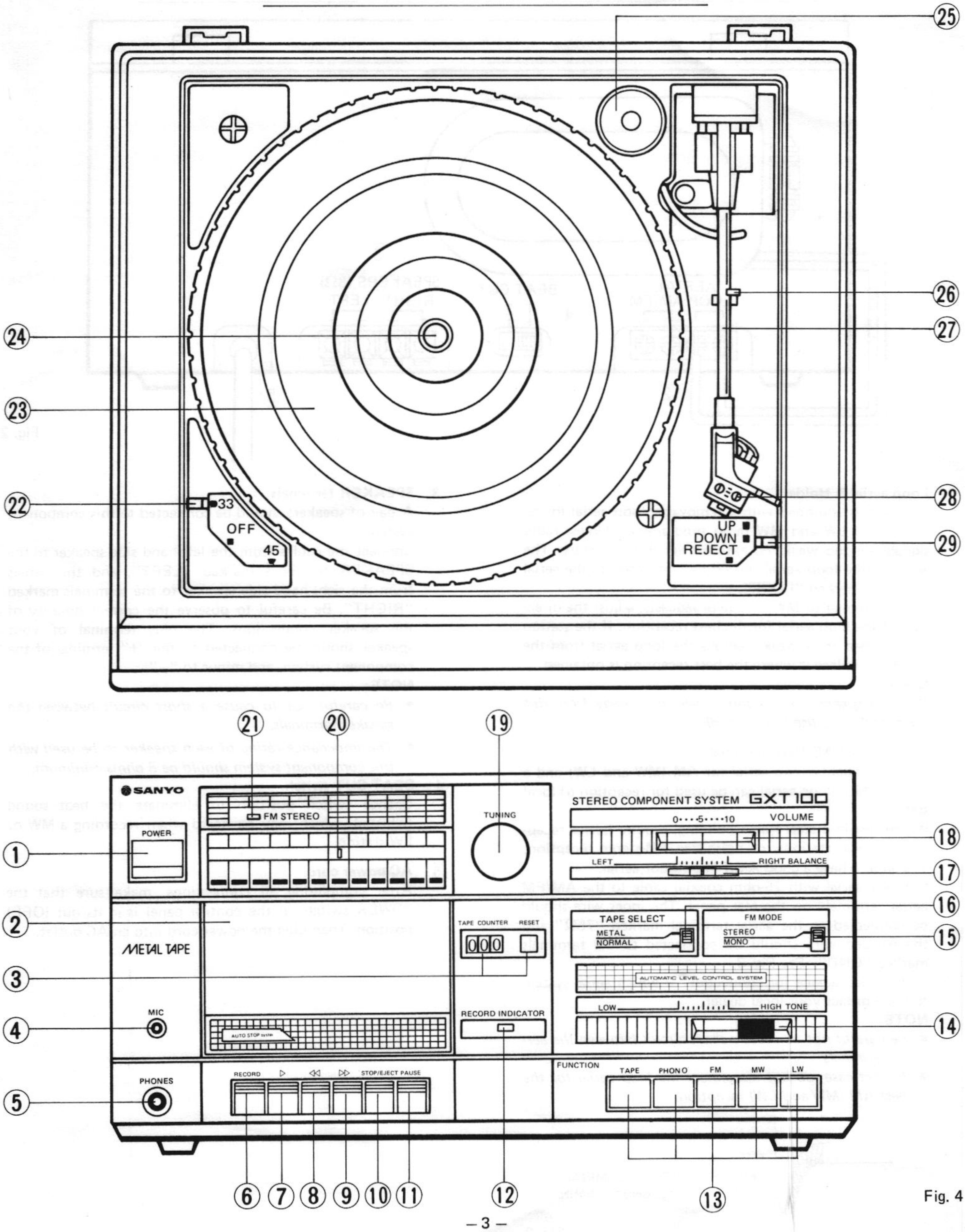

Fig. 4

① **POWER button**
Push in the POWER button to switch the unit on. The indicator on the dial pointer (20) will light.
Release the button to switch the unit off.

② **Cassette compartment**
Holds the cassette while you record or play back a tape.
To open the cassette compartment, press the STOP/EJECT key (10).

③ **TAPE COUNTER & RESET button**
The 3-digit counter enables you to locate any point on the cassette. When you start recording, set the counter to "000" by pushing the RESET button.

④ **Microphone (MIC) jack**
Plug a microphone (needs 3.5 mm jack plug and an impedance between 500 to 2000 ohms) into this jack for live mono recordings. When not in use, pull out microphone.

⑤ **Headphone (PHONES) jack**
Connect a pair of stereo headphones for private listening.

⑥ **RECORD key**
Depress with the Play "▷" key (7) to switch the built-in tape deck to the recording mode.
The RECORD key is automatically blocked if the erase guard tabs on the cassette have been removed.

⑦ **Play "▷" key**
Depress to start tape motion. Refer to "TAPE DECK OPERATION" section.

⑧ **Rewind "◁◁" key**
Depress to rewind tape.

⑨ **Fast Forward "▷▷" key**
Depress to advance tape.

⑩ **STOP/EJECT key**
Depress to stop tape transport. (Cancels any cassette key except PAUSE.)
Depress again to open the cassette compartment (2).

⑪ **PAUSE key**
Depress to pause in the playback or recording mode.
Depress again and release it to restart the tape.

⑫ **RECORD indicator**
Lights when the built-in tape deck is switched to the recording mode.

⑬ **FUNCTION select buttons**
Selection of the following programme sources can be made with these buttons.
LW . . . . . . For reception of Long Wave broadcasts.
MW. . . . . . For reception of Medium Wave broadcasts.
FM . . . . . . For reception of FM broadcasts.
PHONO . For playing records.
TAPE . . . For tape playback with the built-in tape deck or tape recordings through microphone.

⑭ **TONE control**
Adjust to provide the sound you prefer.

⑮ **FM MODE switch**
Normally, this switch should be in the STEREO position.
Set the switch to the MONO position only to hear FM mono broadcasts.

⑯ **TAPE SELECT switch**
Set to the type of tape being used.
METAL . . . . for Metal tapes.
NORMAL . . . for Ferric Oxide tapes.

⑰ **BALANCE control**
Keep the BALANCE control at its mid-position unless the volume levels in the left and right channels sound unequal at your listening position. In which case, adjust the knob to LEFT or RIGHT to restore balance.

⑱ **VOLUME control**
Initially, adjust the VOLUME control for a low listening level. After choosing the programme source you want, adjust it to the required volume level.

⑲ **TUNING control**
Use to tune in the desired LW, MW or FM station.

⑳ **Dial pointer**
The position of the dial pointer shows the frequency to which the unit is tuned.

㉑ **FM STEREO indicator**
When the FM function switch (13) is depressed and the FM MODE switch (15) is in the STEREO position, this light shows when an FM stereo broadcast is being received.

㉒ **SPEED selector**
Selects the speed of the turntable platter (23).
33 . . . . for 33-1/3 rpm LP records.
45 . . . . for 45 rpm records.

㉓ **Turntable platter**
㉔ **Turntable spindle**
㉕ **45 rpm adaptor**
㉖ **Tone arm rest & hook**
㉗ **Tone arm**
㉘ **Head shell with cartridge**
㉙ **Operation lever**
Move the lever forward (REJECT position) to stop record playback.
Move the lever backward (UP position) to lift the tone arm (27).
Refer to "RECORD PLAYER OPERATION" section.

RECEIVER OPERATION

BASIC ADJUSTMENT OF THE COMPONENT SYSTEM

POWER:

Before switching on and off, always set the VOLUME control to "0" to protect your speakers and to prevent possible problems.

TONE CONTROLS:

After choosing the programme source you want, adjust the VOLUME, BALANCE, and TONE controls for the most pleasant listening level and tonal balance.

AM (LW/MW) RECEPTION

First, make sure that the loop aerial supplied is properly connected to the AERIAL terminals. See the "CONNECTING THE COMPONENT SYSTEM" section.

1. Push in the appropriate function button to select the band desired. (LW or MW).
2. Increase the volume slightly to facilitate tuning.
3. Tune in the desired station with the TUNING control.
4. If the station being tuned in is weak or noisy, adjust the direction of the loop aerial, or remove the loop aerial from the holder and place it where the best reception is obtained.

FM RECEPTION

First, make sure that a simple indoor aerial or an outdoor aerial is properly connected to the AERIAL terminals.
See the "CONNECTING THE COMPONENT SYSTEM" section.

1. Push in the FM function switch.
   Be sure that the FM MODE switch is in the STEREO position.
2. Increase the volume slightly to facilitate tuning.
3. Tune in the desired station with the TUNING control.
4. If the station being tuned in is broadcasting a stereo programme, the FM STEREO indicator will light.
5. If you wish to tune in a weak FM station, an FM station broadcasting in mono, or if the FM STEREO indicator blinks, set the FM MODE switch to the MONO position for better sound quality (you then receive the broadcast monaurally).

HEADPHONES

For private listening to all programme sources, you may plug a pair of stereo headphones into the PHONES jack on the control panel.
When a headphone set is plugged in, the speakers are automatically disconnected. Readjust the VOLUME control for comfortable headphone listening level.

NOTE:

- *The VOLUME control should be set to "0" before plugging in or unplugging the headphones. This is necessary to protect your ears, the headphones and the speakers.*
- *Recommended impedance of headphones is 8 to 400 ohms.*

RECORD PLAYER OPERATION

TO PLAY A RECORD

Before using the record player, remove the tape that holds the tone arm and disengage the tone arm lock.

1. Switch the unit on.
2. Place a record on the turntable platter. If necessary, use the 45 rpm record adaptor supplied.
3. Push in the PHONO function button.
4. Set the SPEED selector for the applicable record speed (33-1/3 or 45 rpm).
5. Move the operation lever backward (UP position) to lift the tone arm from its rest.
6. Gently, place the stylus over the required position on the record. The turntable platter will begin revolving.
7. Move the operation lever to the DOWN position. The tone arm will descend onto the record.
8. Adjust the VOLUME, BALANCE, and TONE controls for the most pleasant listening level and tonal balance.
9. At the end of the record, the tone arm will return to its rest and the turntable platter will stop revolving.
   You may stop the record playback at any time by moving the operation lever forward (REJECT position). The tone arm will return to its rest. Do not touch the tone arm or head shell while it is returning to its rest.
   NOTE:
   - *The first time you use the record player, the tone arm may not return to its rest. If this happens, move the operation lever forward (REJECT position).*
   - *After use, engage the tone arm lock to avoid accidental stylus damage and set the SPEED selector to the OFF position to prevent possible problems.*

TAPE DECK OPERATION

RECOMMENDED CASSETTE TAPE

To get the best results, use only high quality Metal, Ferric Oxide or Low Noise (LN) cassette tapes and clean the tape heads on a regular basis (See MAINTENANCE.). Your unit will give you optimum results if used with reputable brand name tapes. C-30, C-60 and C-90 cassettes are best. We do not recommend the C-120 cassettes, because constant tape tension cannot be controlled.

CHECKING THE CASSETTE

Make sure that the cassette tape has no slack prior to inserting the cassette in the recorder. Unless the tape is taut, it may wind around the head mechanism and trouble may result. Use a pencil as shown in the Fig. 5 to take up slack on one of the reels.

Fig. 5

SAFEGUARD AGAINST ACCIDENTAL ERASURE

Whenever a recording is made, any sound already on the tape is erased. To protect recordings from being erased, break out the flaps on the rear of the cassette. Use a screw driver or knife.
Remove flap "A" at the right to protect sound on SIDE 1 and flap "B" to protect SIDE 2. To record on a cassette where the flap was removed, cover the hole with self-adhesive tape. See Fig. 6.

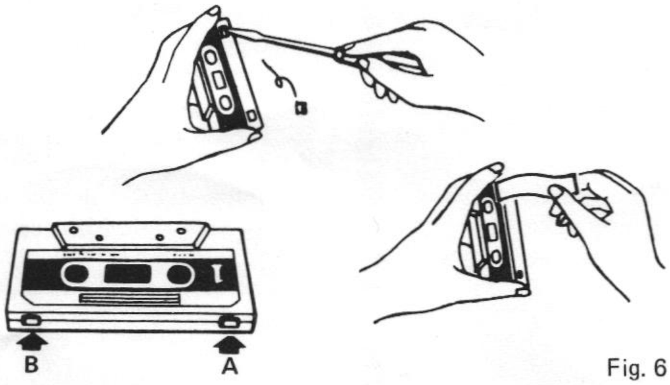

Fig. 6

TAPE SELECT SWITCH

The built-in tape deck has a TAPE SELECT switch so you may select the proper recording bias plus recording and playback equalization for the type of tape being used.
Before recording or playback, set the TAPE SELECT switch according to the type of tape being used to ensure optimum performance.

METAL .... for Metal tapes
NORMAL ...... for Ferric Oxide or Low Noise (LN) tapes

TO INSERT THE CASSETTE

Press the STOP/EJECT key to open the cassette compartment. Push the STOP/EJECT key twice if any of the other keys (except PAUSE) are depressed.
Put in a cassette with the tape on the left-hand side. (as seen through window) and with tape slot at bottom. The cassette will fit only in the correct position. Close the cassette compartment by pushing on top of the cassette compartment lid.

TO REMOVE THE CASSETTE

To open the cassette compartment, press the STOP/EJECT key. Press the STOP/EJECT key twice if any of the other keys (except PAUSE) are depressed.
Remove the cassette. To use the other side of the tape, turn the cassette around and replace it.

TAPE RECORDING

1. Switch the unit on.
2. Select the desired sound source with the function switch (LW, MW, FM, or PHONO).
3. Press the STOP/EJECT key and put a cassette in the compartment with the side to be recorded toward you (the tape to be recorded should be on the left-hand side).
4. Set the TAPE SELECT switch for the type of tape being used (NORMAL or METAL).
5. Push the RESET button to reset the TAPE COUNTER to "000".
6. Depress the PAUSE key, then RECORD and Play (▷) keys simultaneously.
7. When you are ready to begin recording, release the PAUSE key by pressing it again. During recording, the RECORD INDICATOR will light.
8. This unit contains an Auto Level Control (ALC) circuit which supplies the recording signals at a constant, optimum level. It is therefore not necessary to adjust the recording level.
   Adjusting the VOLUME, BALANCE, and TONE controls during recording will have no effect on the recorded sound.
9. When recording is finished, press the STOP/EJECT key. If the tape is wound completely to the right-hand side reel while recording, the tape deck will automatically stop.

MICROPHONE

For live mono recording through a microphone, plug a microphone (needs 3.5 mm jack plug and an impedance between 500 to 2000 ohms) into the MIC jack.
Place the microphone about 15 cm away from sound source, then push in the TAPE function switch. For other recording procedures, see "TAPE RECORDING" section.

TAPE PLAYBACK

1. Switch the unit on.
2. Push in the TAPE function switch.
3. Press the STOP/EJECT key and put a recorded cassette in the compartment with side to be played toward you and the tape slot at the bottom.
4. Set the TAPE SELECT switch for the type of tape being used (METAL or NORMAL).
5. Depress the Play (▷) key. Your unit will begin to play back.

6. Adjust the VOLUME, BALANCE, and TONE controls for the most pleasant listening level and tone balance.
7. To stop playback temporarily, depress the PAUSE key. To restart, release the PAUSE key by pressing it again.
8. When playback is finished, press the STOP/EJECT key. If the end of the tape is reached while playing back, the tape deck will automatically stop.
9. To switch the unit off, release the POWER switch.

FAST FORWARD/REWIND

To play back any desired portion in the middle of the tape, depress the Fast Forward (▷▷) key. Press the STOP/EJECT key when the desired playback section is reached.
To return the tape to the beginning, depress the Rewind (◁◁) key. Press the STOP/EJECT key to stop the tape.

MAINTENANCE

CAUTION: FOR YOUR SAFETY, UNPLUG THE AC POWER CORD BEFORE CLEANING.

CLEANING OF HEADS, PINCH ROLLER AND CAPSTAN

Clean the heads, pinch roller and capstan on a regular basis before dust and red-brown oxide can build up. These items may be cleaned with a cotton swab moistened in methylated spirit or special head cleaning fluid.

1. Press the STOP/EJECT key. The cassette compartment will open.
2. Carefully rub the face of the head with the cotton bud moistened with fluid until perfect clean. Even though pre-recorded tapes seem to play properly, recording may be prevented on only one or on both channels if even a slight amount of dust or oxide is left on the heads.
3. Carefully clean the pinch roller and capstan.
   If pinch roller and capstan become dirty, the tape will slip and tape speed will not be steady (will have a "wobbling" sound).

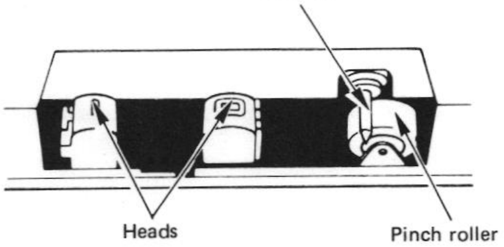

Fig. 7

CLEANING OF CABINET AND VISIBLE METAL PARTS

Use a clean soft cloth moistened with plain lukewarm water. Never use benzol, benzine or other strong chemical cleaners since they could damage the finish of your unit.
It is important that no liquid reaches the inside of the unit.

REPLACING THE CASSETTE COMPARTMENT DOOR

If the cassette compartment door is removed while unpacking or cleaning, replace it by placing the door onto the door frame and pushing it down.

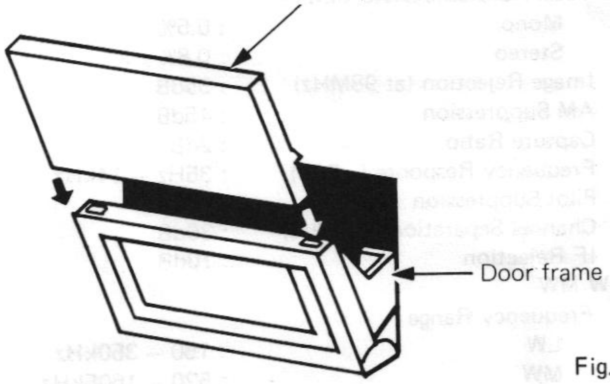

Fig. 8

CARTRIDGE & STYLUS

The stylus should have a long life if treated carefully. Always clean records before use and remove any dust or fluff from the stylus tip with a small brush. Never allow the cartridge stylus to crash down on the record or on the turntable platter.
Reduced sound quality from a good record means that the stylus may need replacing. A replacement stylus assembly can be bought at your SANYO dealer. Use only genuine replacement stylus type "SANYO ST-G6".
To remove the old stylus, pull out the stylus assembly in the direction shown, holding the head shell with other hand. Then install the new stylus following the same procedure as shown in Fig. 9 but in reverse.

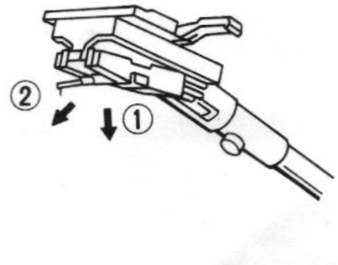

Fig. 9

SPECIFICATIONS

AMPLIFIER SECTION

Output Power	
at 1kHz, 5% THD, 8 ohms load	: 3.5W/Ch.
Total Harmonic Distortion	
Rated output, –3dB	: 0.5%
Frequency Response (–3dB)	: 30Hz – 30kHz
Intermodulation Distortion (–5dB)	: 1%

TUNER SECTION

FM	
Frequency Range	: 87.5 – 108MHz
Usable Sensitivity (S/N 26dB)	
Mono	: 20dBf
Stereo	: 45dBf
Signal-to-Noise Ratio	
Mono	: 60dB
Stereo	: 50dB
Total Harmonic Distortion	
Mono	: 0.5%
Stereo	: 0.8%
Image Rejection (at 98MHz)	: 35dB
AM Suppression	: 45dB
Capture Ratio	: 2dB
Frequency Response (–3dB)	: 35Hz – 14kHz
Pilot Suppression	: 50dB
Channel Separation (at 1kHz)	: 30dB
IF Rejection	: 70dB
LW/MW	
Frequency Range	
LW	: 150 – 350kHz
MW	: 520 – 1605kHz
Sensitivity (S/N 20dB)	
LW	: 1000μV/m
MW	: 400μV/m
Image Rejection (at 1400kHz)	: 40dB
IF Rejection	: 30dB
Total Harmonic Distortion	: 1%
Signal-to-Noise Ratio (Unweighted)	: 40dB

PHONO SECTION

Wow & Flutter (Weighted)	: 0.2%
Speed Accuracy	: ±2.5%
Signal-to-Noise Ratio (Weighted)	: 45dB

CASSETTE DECK SECTION

Wow & Flutter (JIS weighted)	: 0.15%
Speed Accuracy (Play)	: ±1%
Frequency Response	
Normal Tape	: 40Hz – 12.5kHz
Metal Tape	: 40Hz – 14kHz
Signal-to-Noise Ratio (Weighted)	: 50dB
Total Harmonic Distortion (at 1kHz)	: 1.5%
Crosstalk (at 1kHz)	
between channels	: 40dB
between tracks	: 60dB
Erase Ratio (at 1kHz)	: 60dB

GENERAL

Power Source	: 240V AC, 50Hz
Dimensions (W x H x D)	: 420 x 246 x 393 mm

*Specifications subject to change without notice.

SANYO

SANYO ELECTRIC CO., LTD.
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